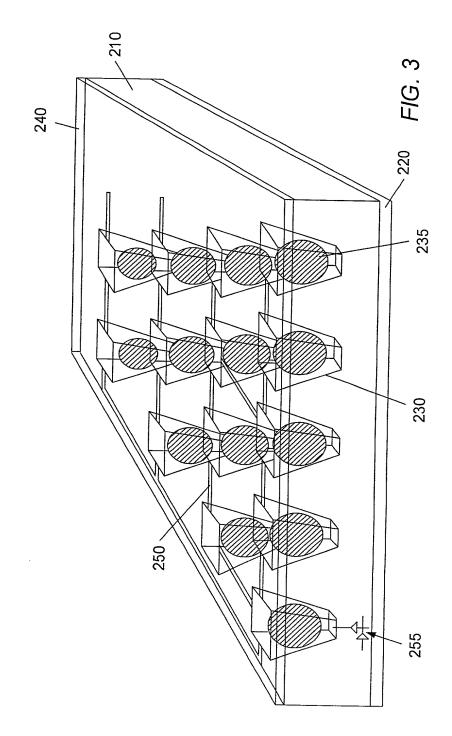


<sup>-</sup>16. 2



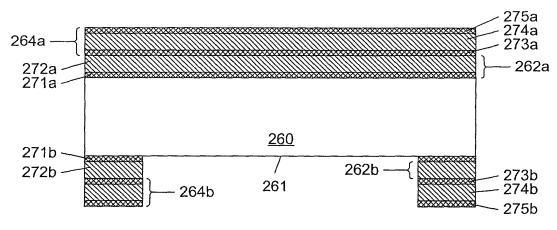


FIG. 4A

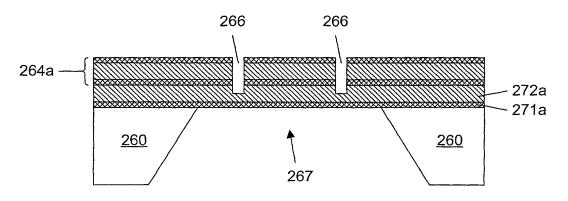


FIG. 4B

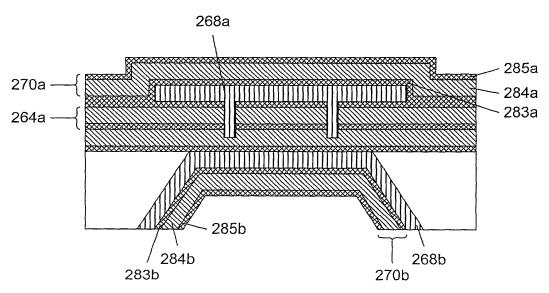


FIG. 4C

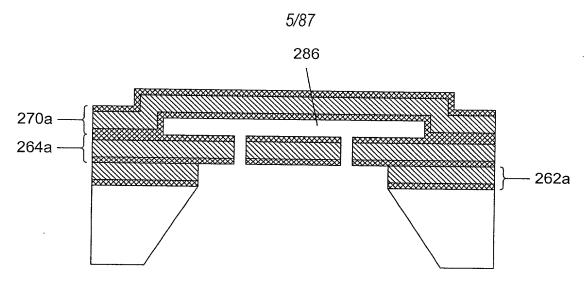


FIG. 4D

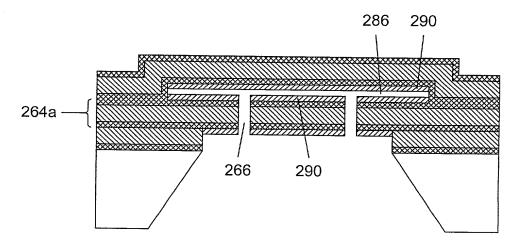


FIG. 4E

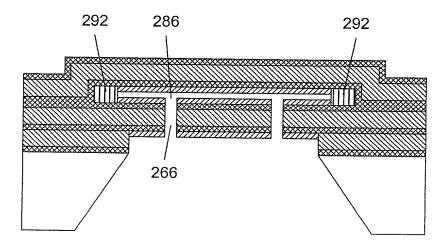
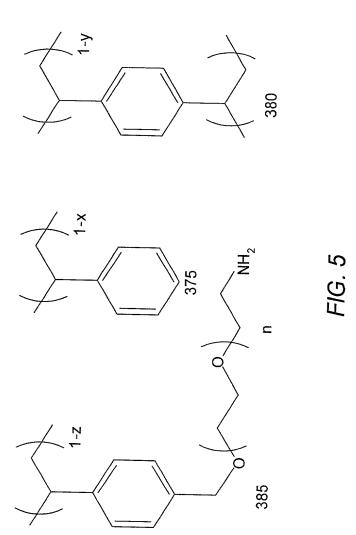
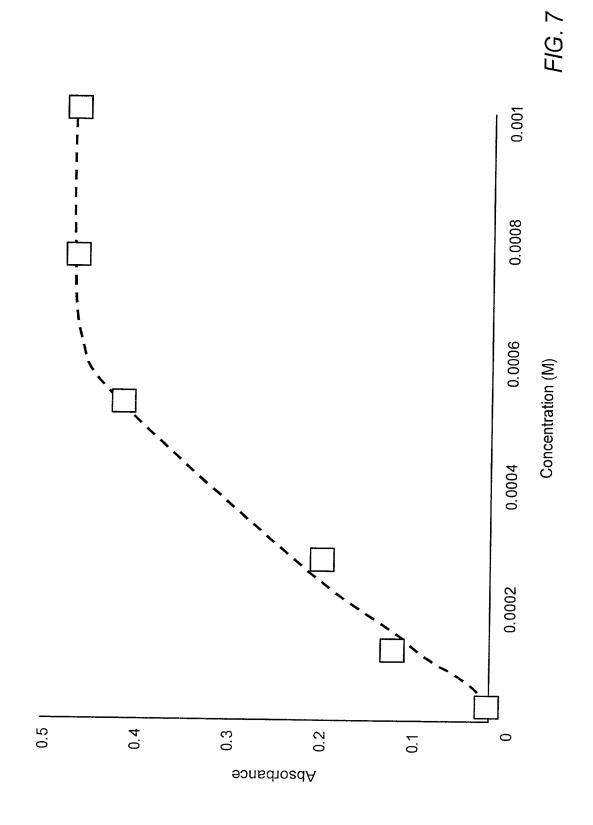


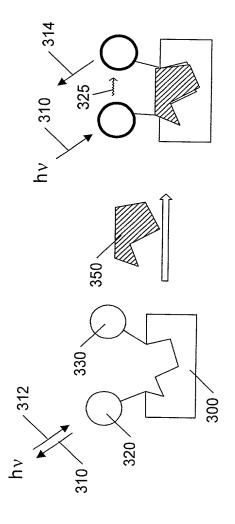
FIG. 4F



CH<sup>3</sup>

o-cresolphthalein complexone





=/G. 8

$$\begin{array}{c} HO \\ OH \\ OH \\ OH \\ \end{array}$$

$$\begin{array}{c} HO \\ OH \\ OH \\ \end{array}$$

$$\begin{array}{c} HO \\ OH \\ OH \\ \end{array}$$

$$\begin{array}{c} OH \\ OH \\ \end{array}$$

$$\begin{array}{c} OH \\ OH \\ \end{array}$$

FIG. 9

**Peptides** 

**Nucleotides** 

FIG. 10

$$\begin{array}{c|c} H_2N-R_2-NHtBOC \\ \hline 420 \\ \end{array}$$

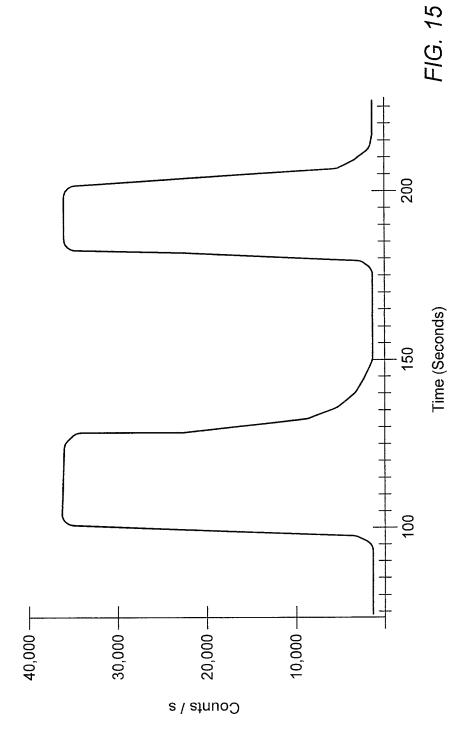
FIG. 11

FIG. 12

FIG. 13

$$H_2N$$
 $O$ 
 $NH_2$ 
 $CO_2H$ 
 $H_2N$ 
 $NH_2$ 
 $475$ 

FIG. 14



	DECINI:			a Crasal		Alizaria Co3+
pH	RESIN: Ion	Blank	Alizarin	o-Cresol- phthalein	Fluorescein	Alizarin-Ce <sup>3+</sup> complex
2	none	R G B	R G B	R G B	R G B	R G B
2	Ca <sup>2+</sup>	R G B	R G B	R G B	R G B	R G B
7	none	R G B	R G B	R G B	R G B	R G B
7	Ca <sup>2+</sup>	R G B	R G B	R G B	R G B	R G B
7	F -	R G B	R G	R G B	R G	R G B
12	none	R G B	R G B	R G B	R G B	R G B
12	Ca <sup>2+</sup>	R G B	R G B	R G B	R G B	R G B
12	F -	R G B	R G B	R G B	R G	R G B

FIG. 16

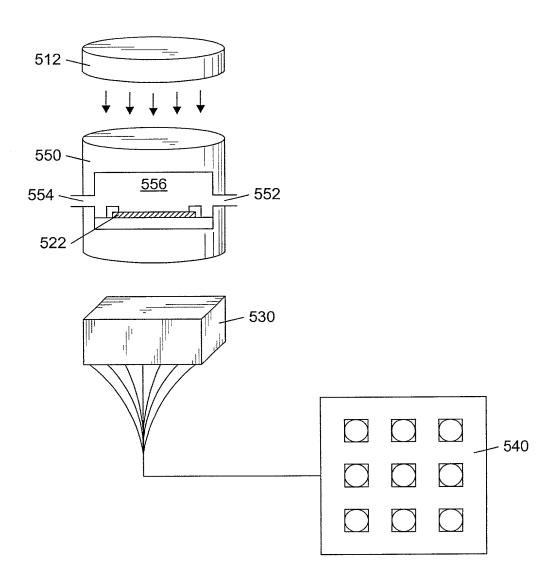


FIG. 17

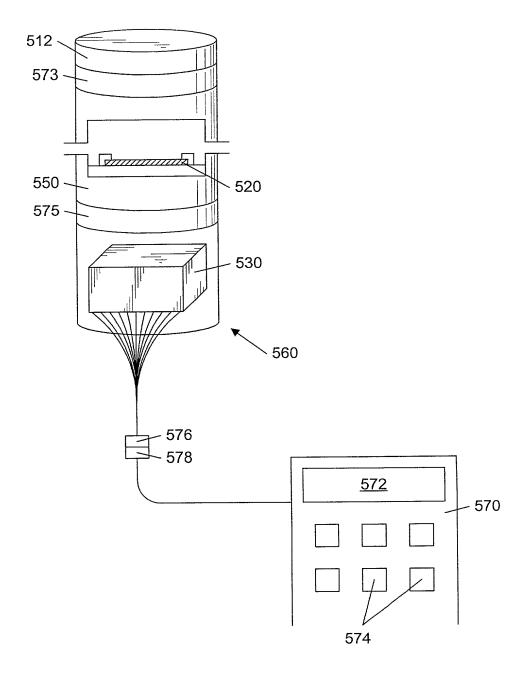
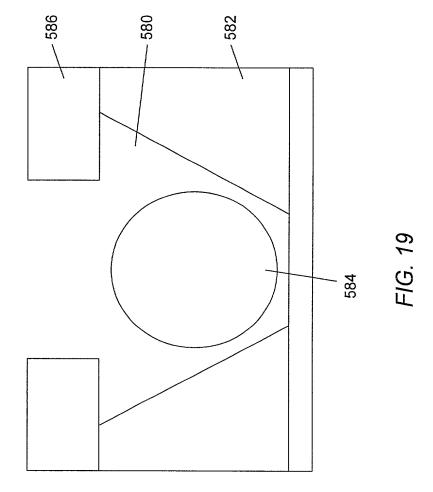
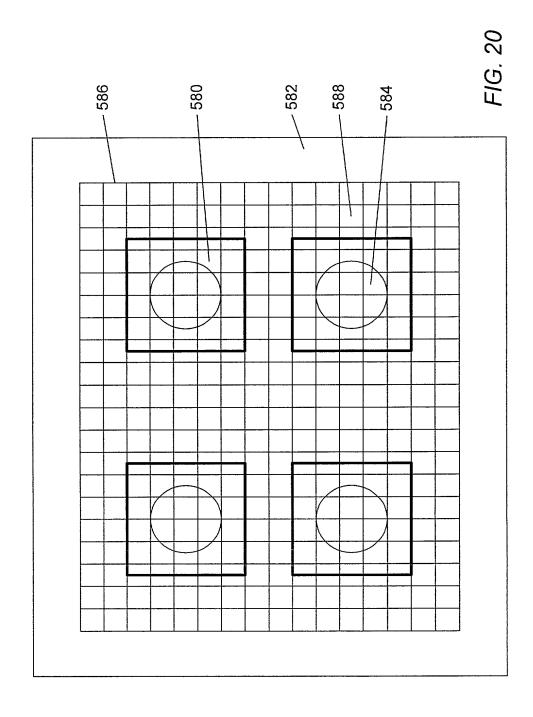


FIG. 18





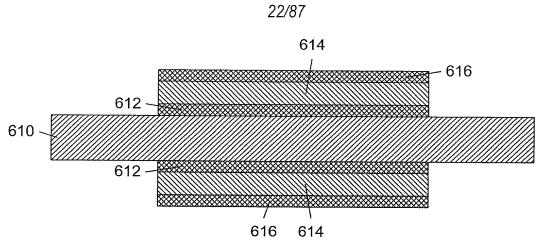
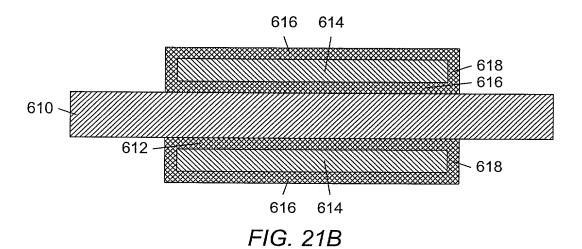


FIG. 21A



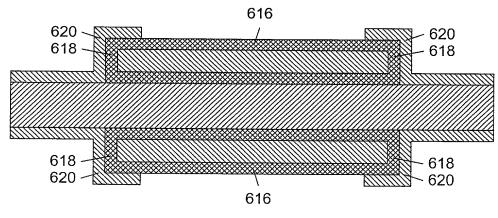


FIG. 21C

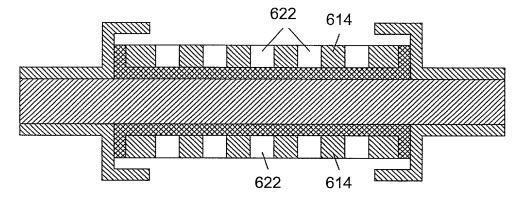
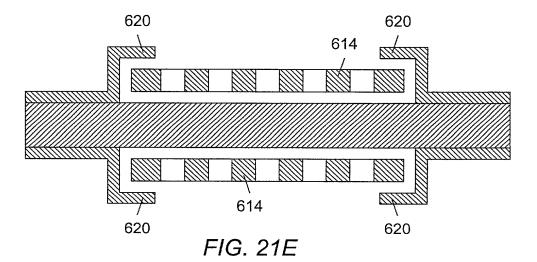


FIG. 21D



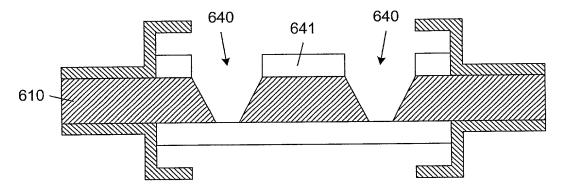


FIG. 21F

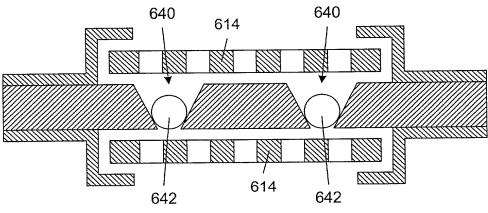
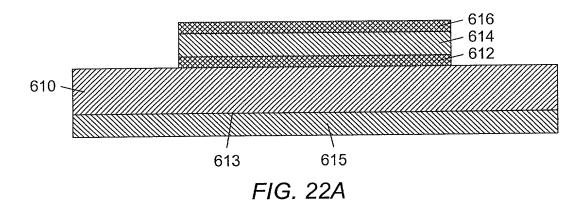


FIG. 21G



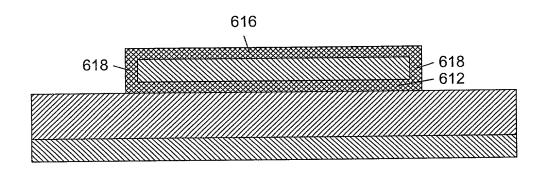


FIG. 22B

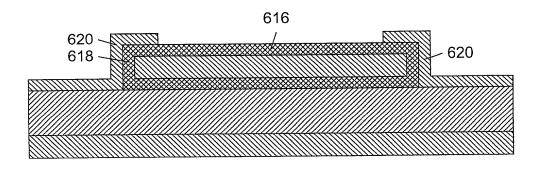
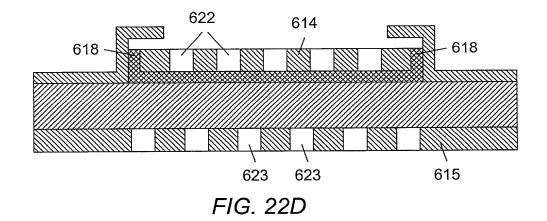


FIG. 22C



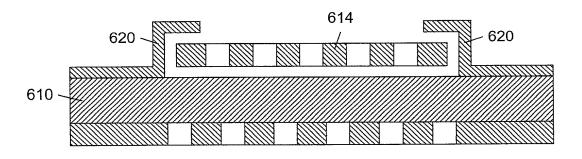


FIG. 22E

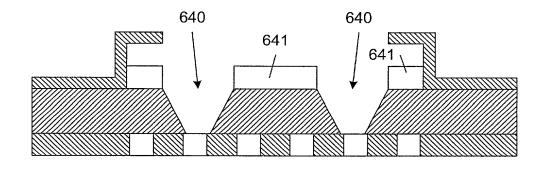


FIG. 22F

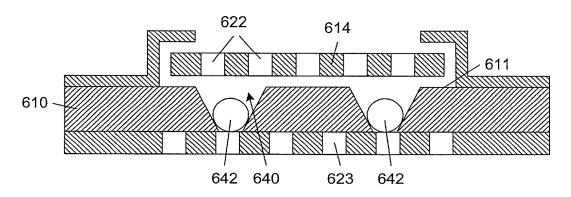


FIG. 22G

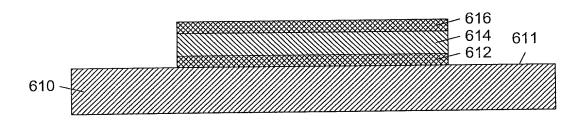


FIG. 23A

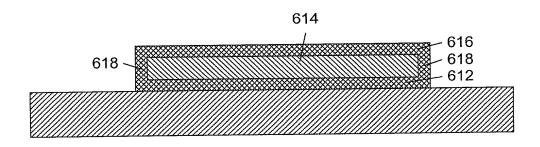


FIG. 23B

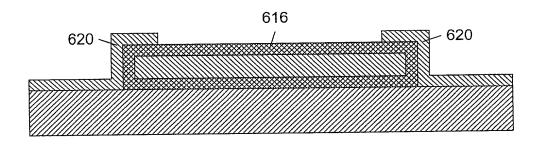


FIG. 23C

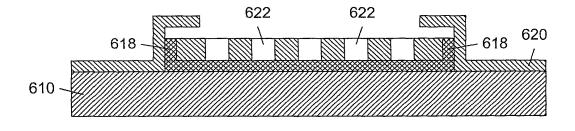


FIG. 23D

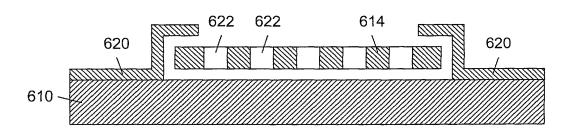


FIG. 23E

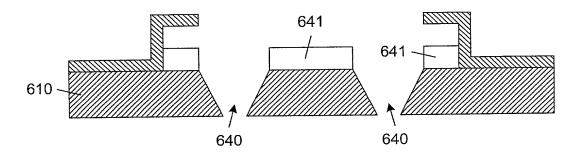


FIG. 23F

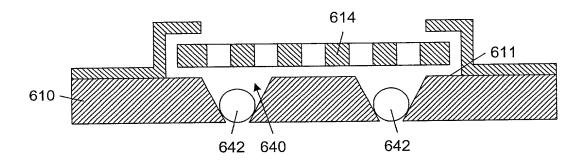


FIG. 23G

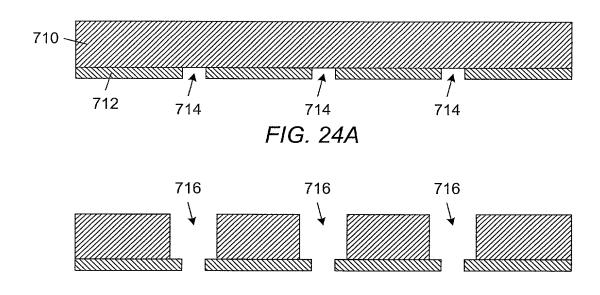


FIG. 24B

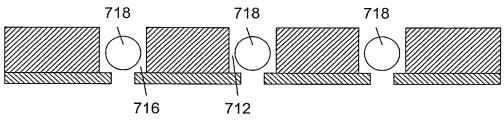


FIG. 24C

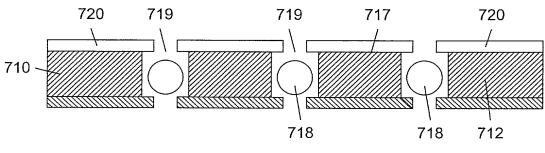
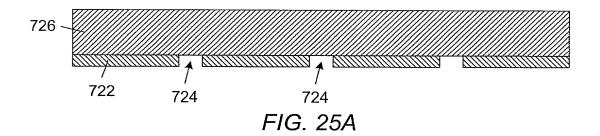


FIG. 24D



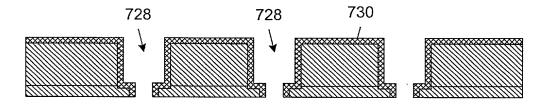
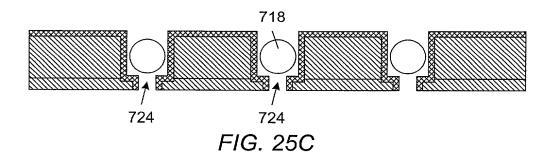


FIG. 25B



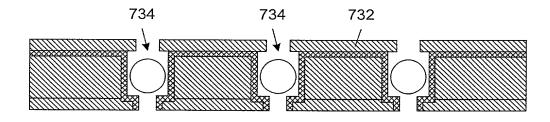
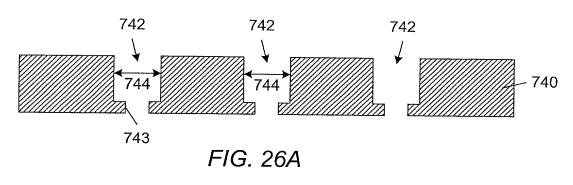


FIG. 25D



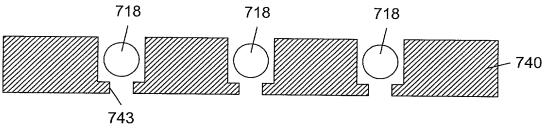


FIG. 26B

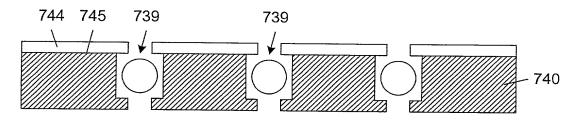
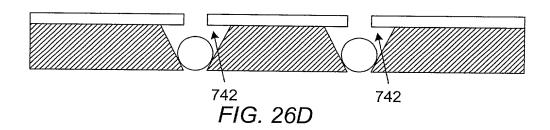
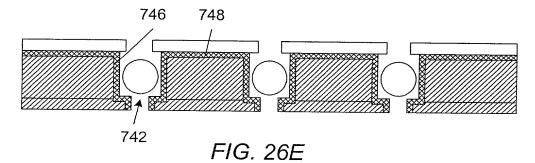


FIG. 26C





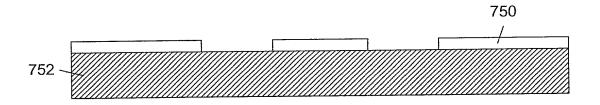


FIG. 27A

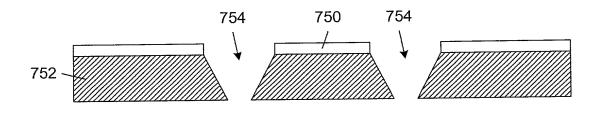


FIG. 27B

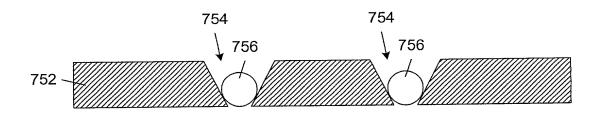
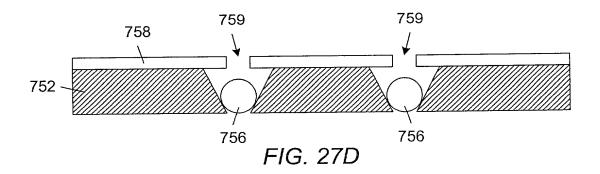
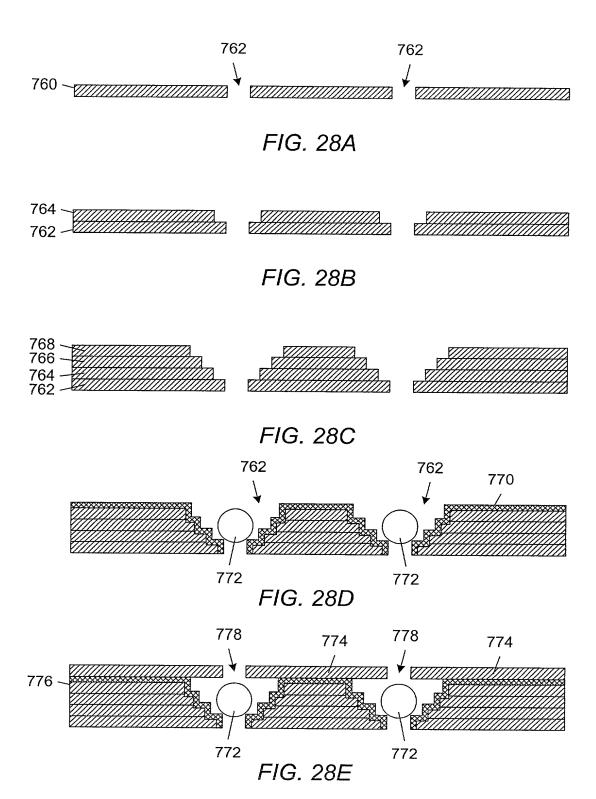
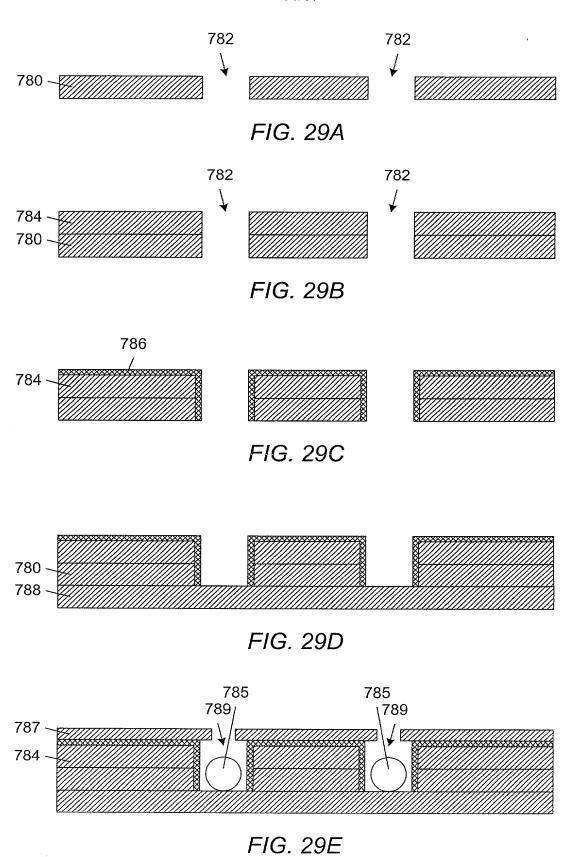


FIG. 27C







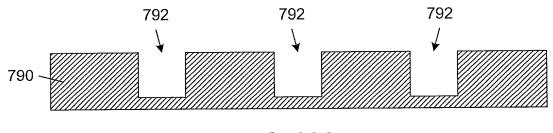


FIG. 30A

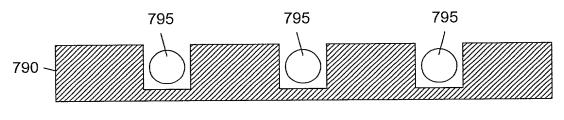


FIG. 30B

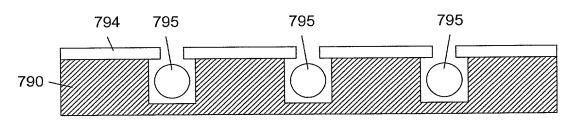


FIG. 30C

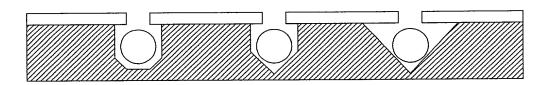


FIG. 30D

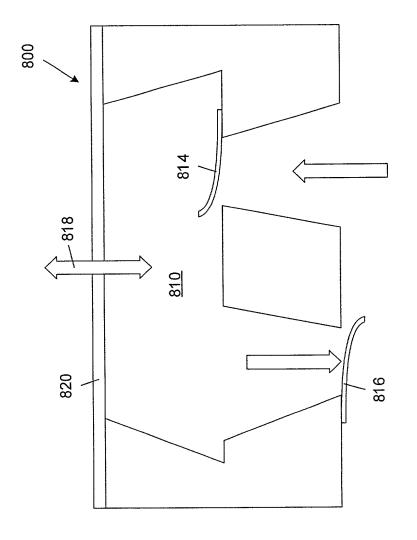


FIG. 31

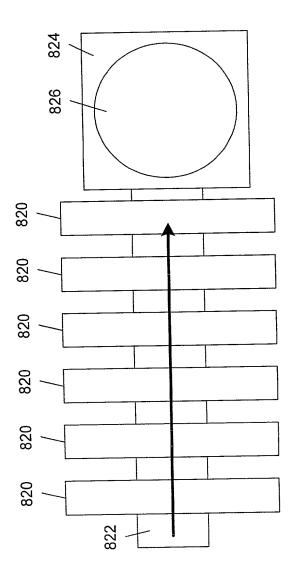
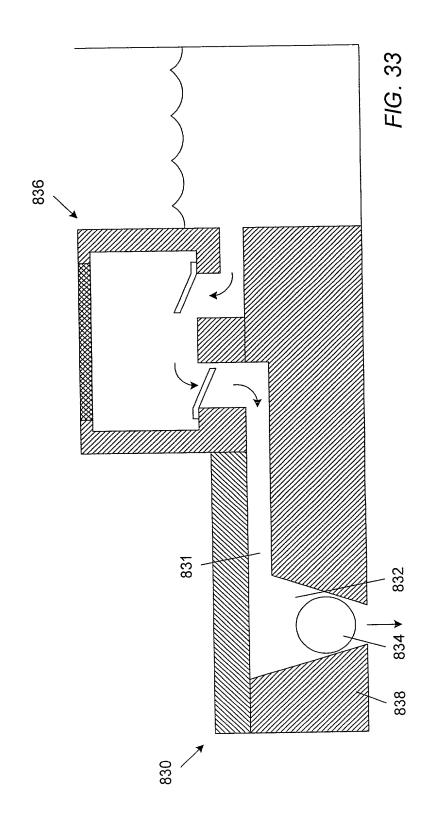
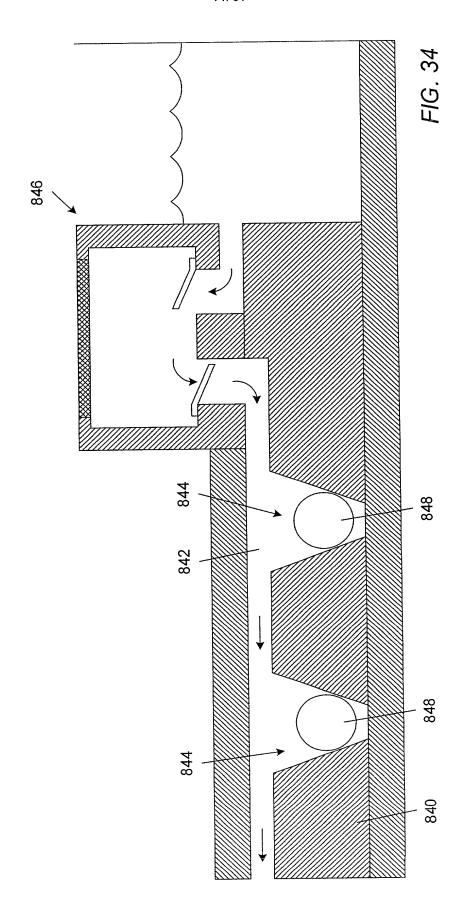
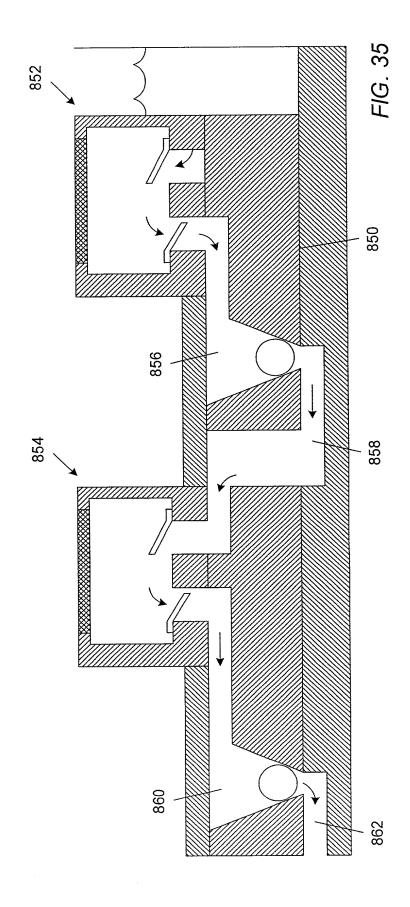


FIG. 32







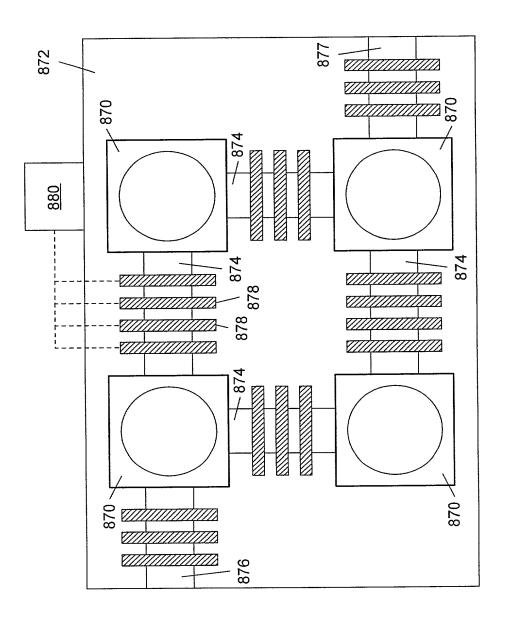
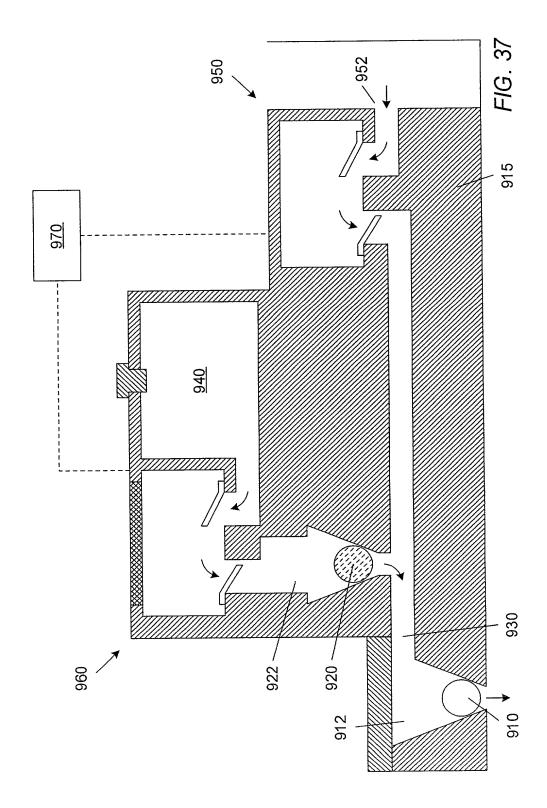
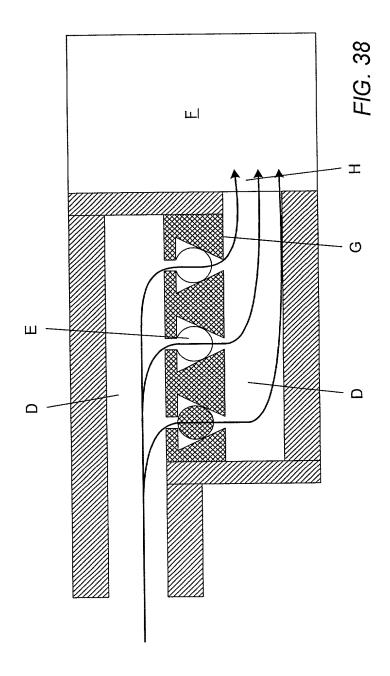
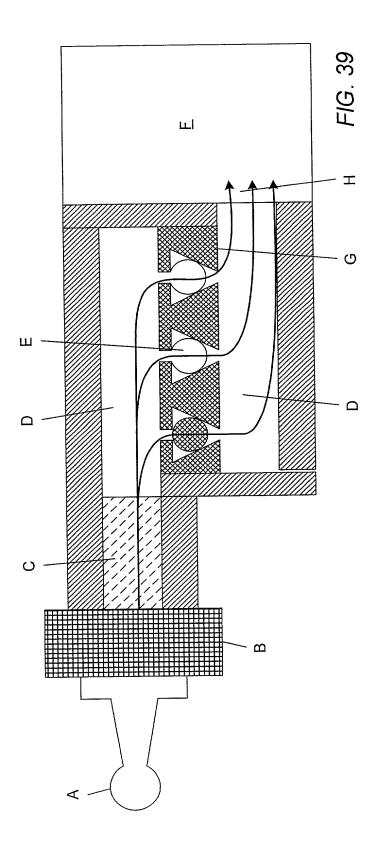
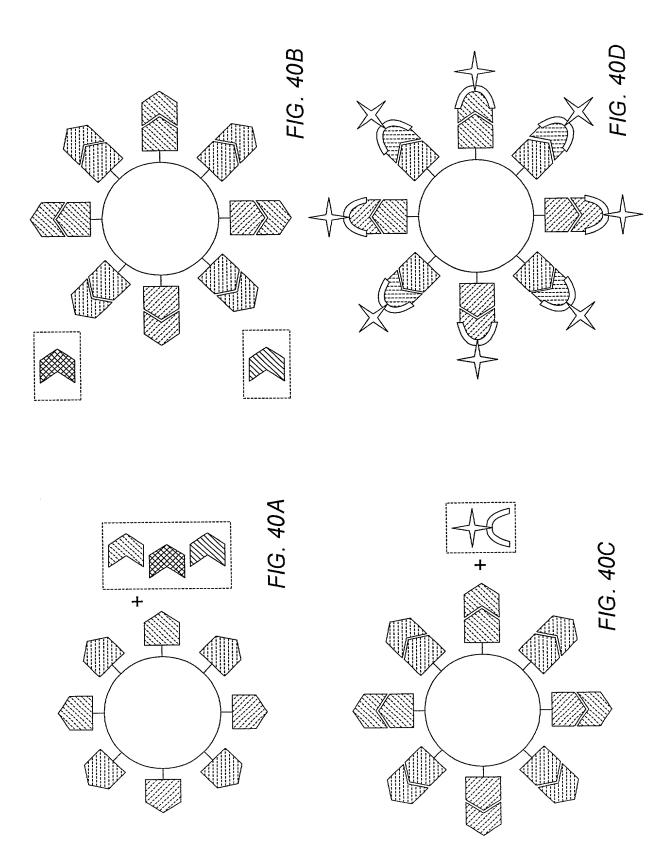


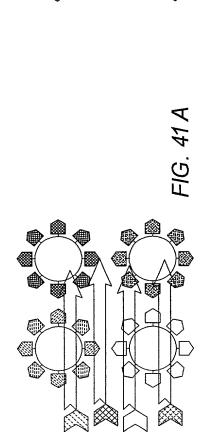
FIG. 36

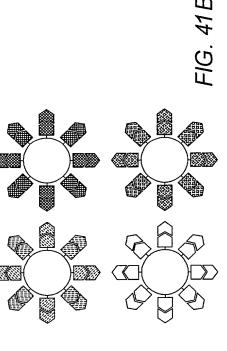


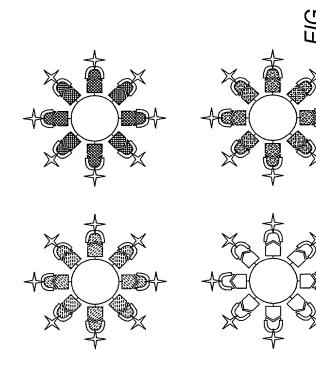


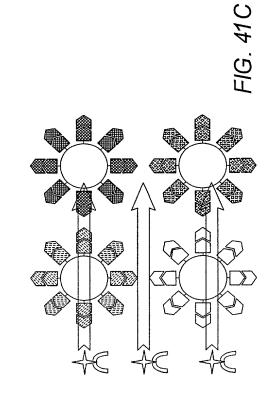


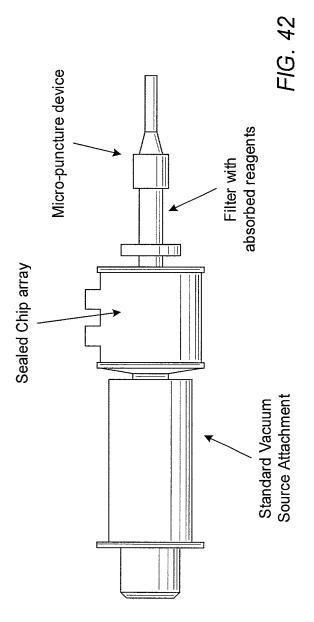




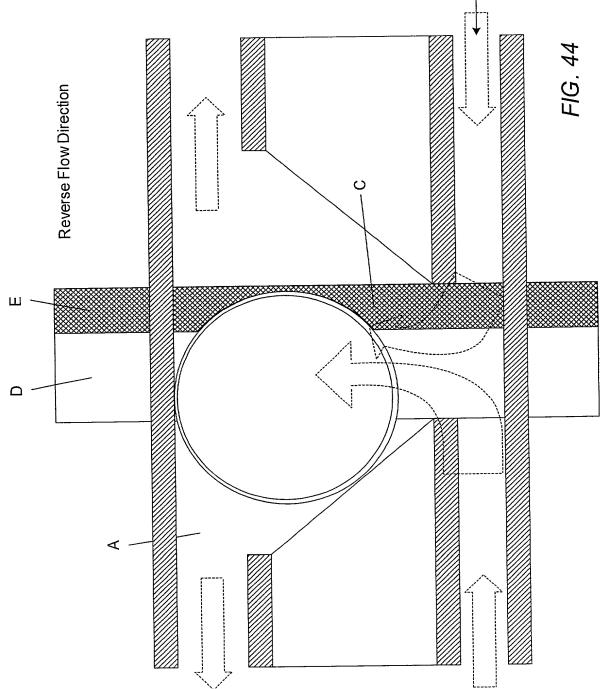








a,



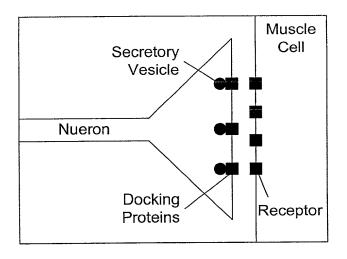


FIG. 45A

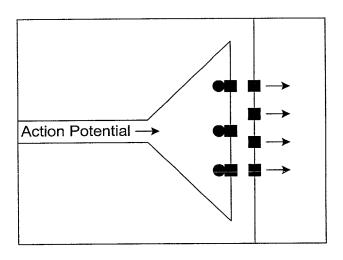


FIG. 45B

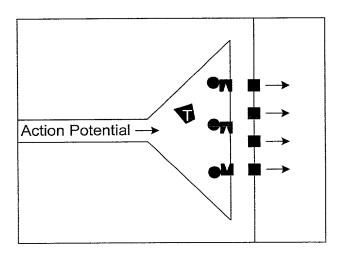
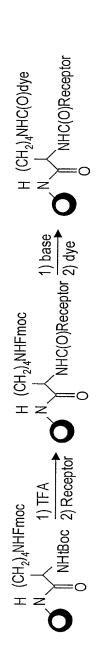
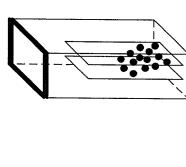


FIG. 45C





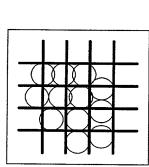
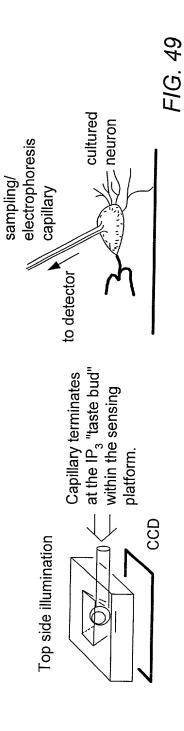


FIG. 46A

FIG. 47

FIG. 48



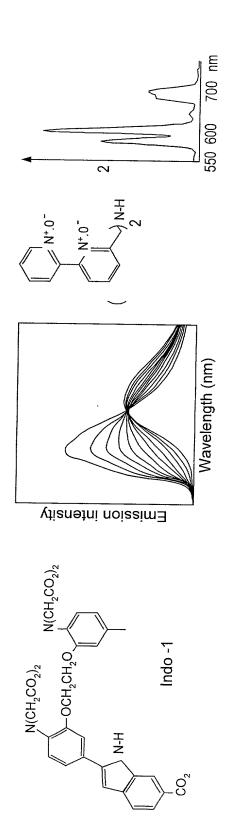
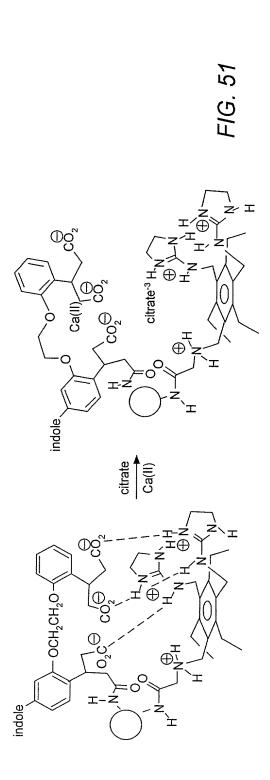
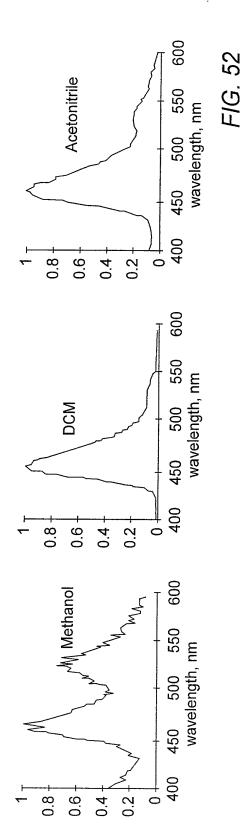
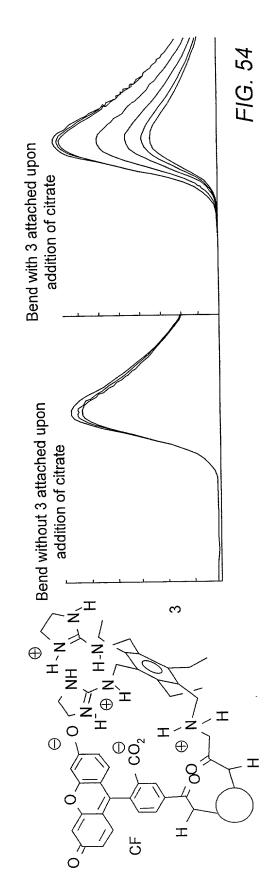
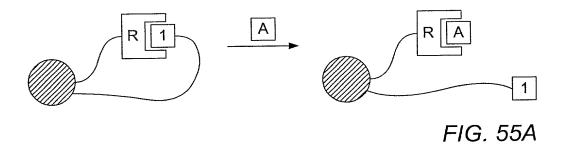


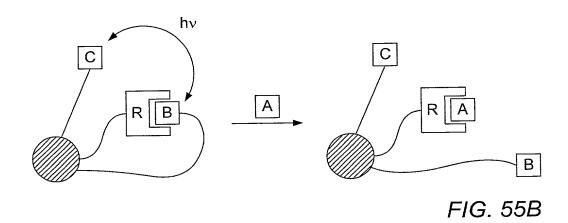
FIG. 50











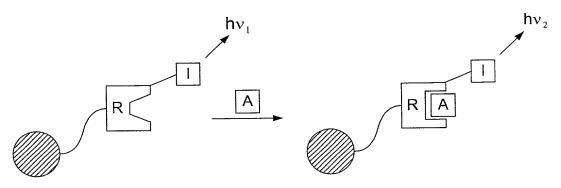


FIG. 55C

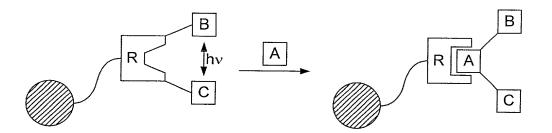
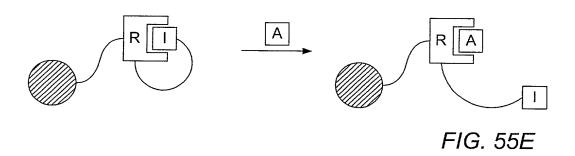


FIG. 55D



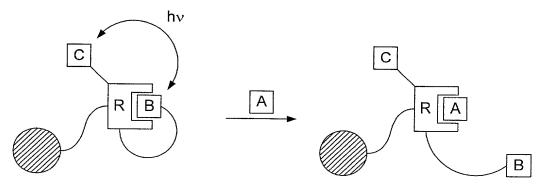


FIG. 55F

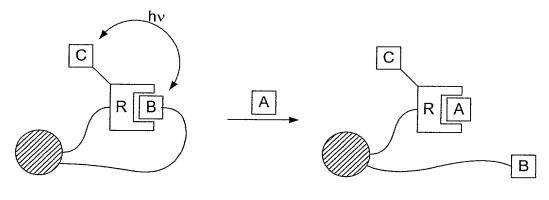
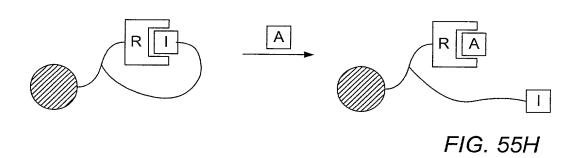


FIG. 55G



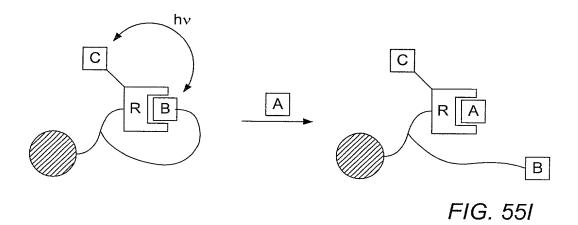


FIG. 57

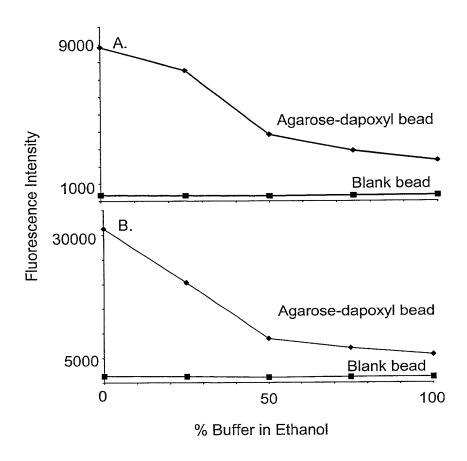
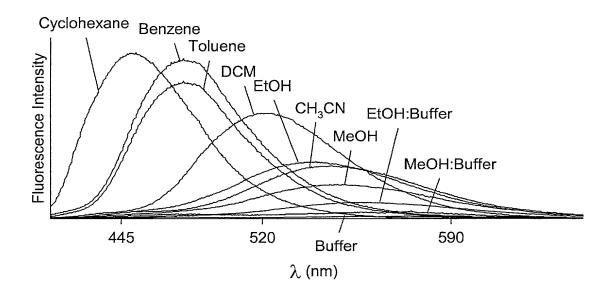
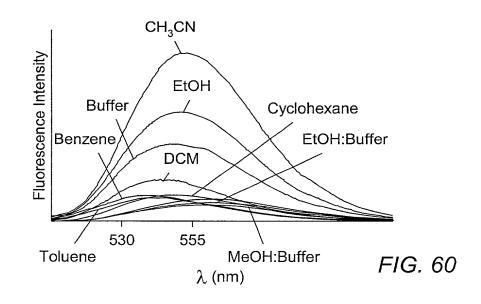


FIG. 58

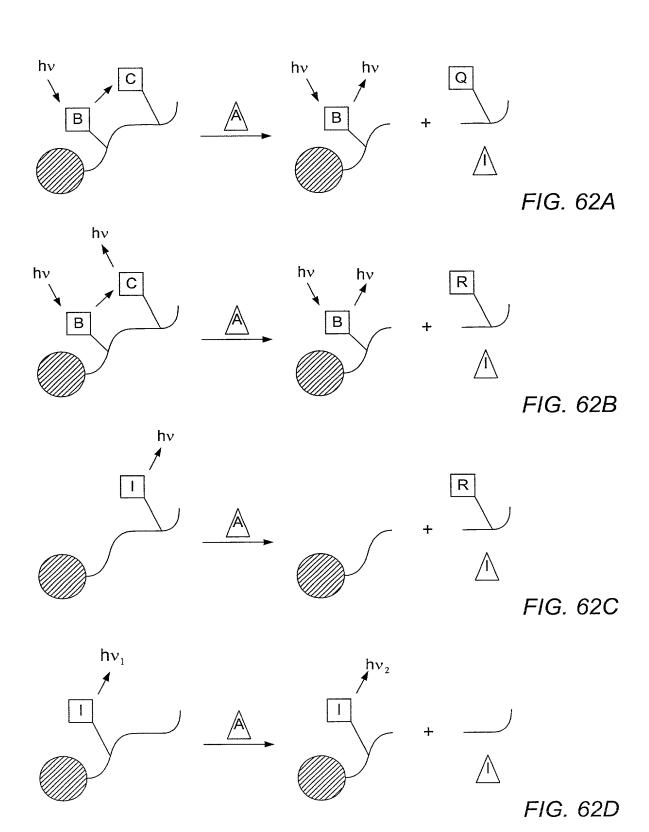
FIG. 59





2: 
$$X_1 = X_2 = H$$
 3:  $X_1 = X_2 = O$ 

FIG. 61



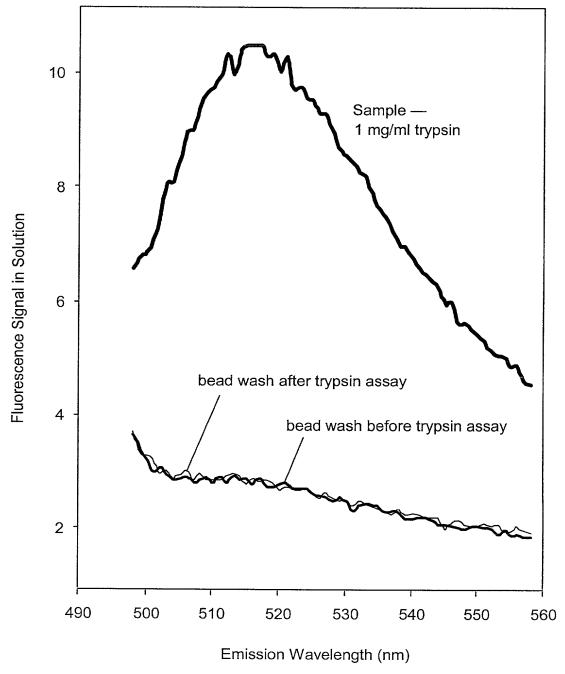


FIG. 63

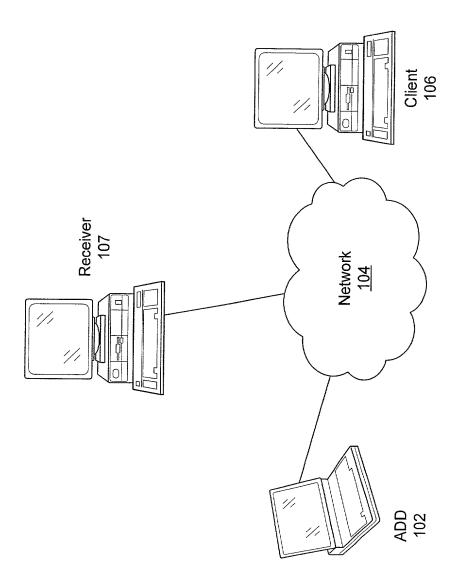


FIG. 64

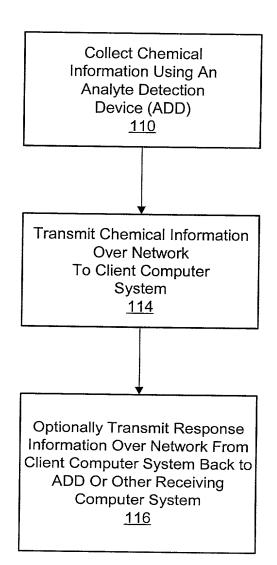
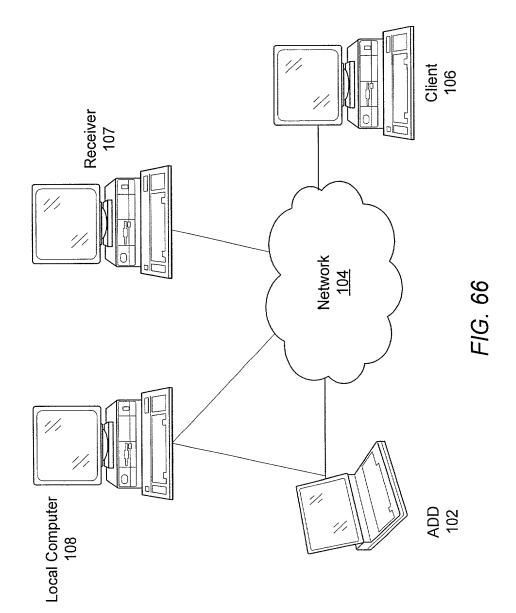


FIG. 65



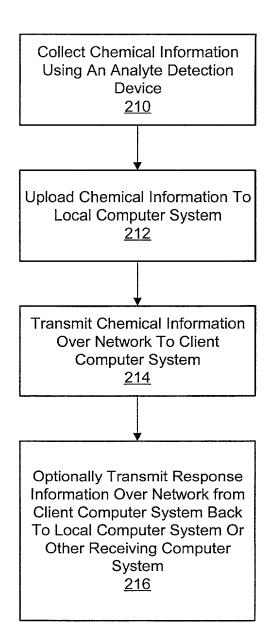
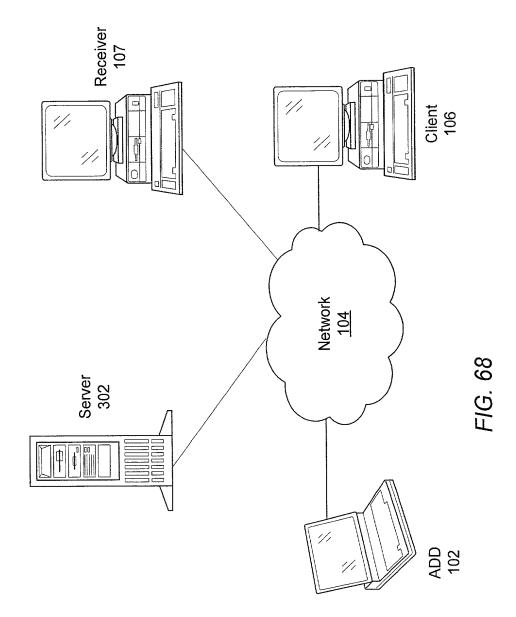


FIG. 67



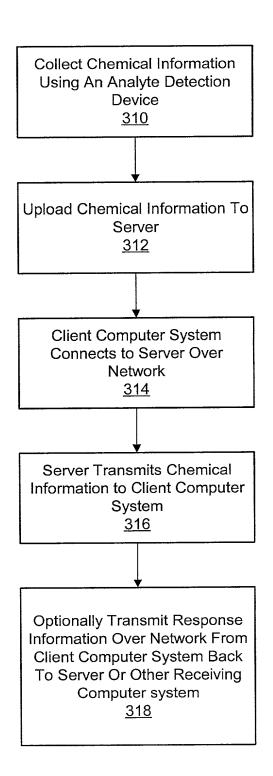


FIG. 69

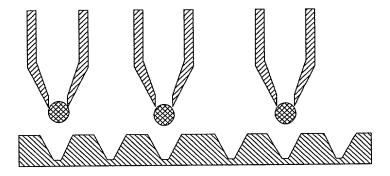


FIG. 70A

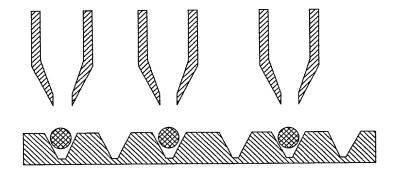


FIG. 70B

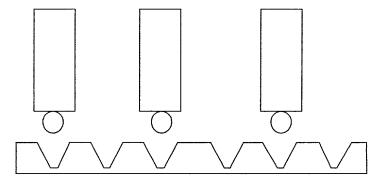


FIG. 71A

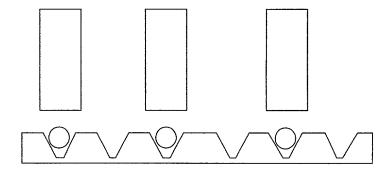


FIG. 71B

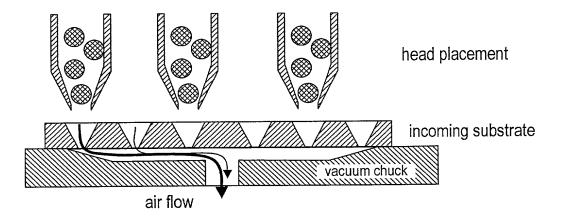


FIG. 72A

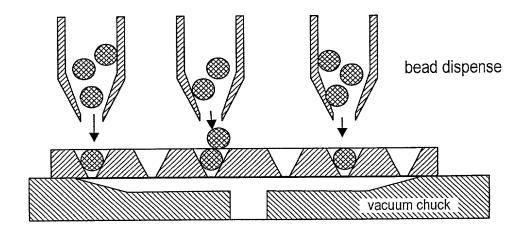


FIG. 72B

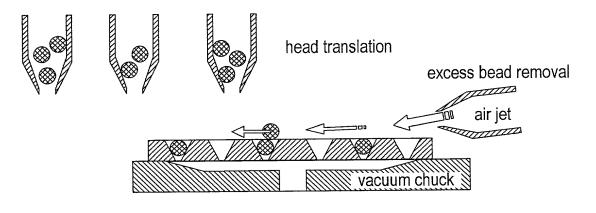


FIG. 72C

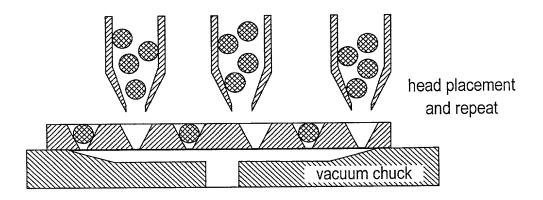


FIG. 72D

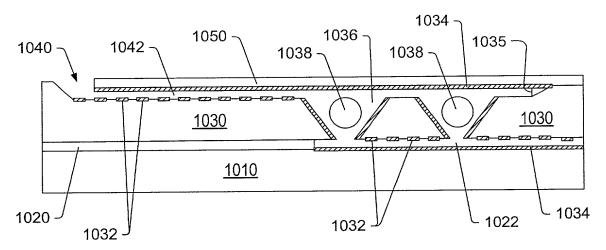


FIG. 73

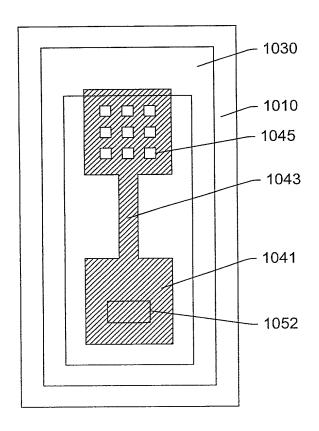


FIG. 74A

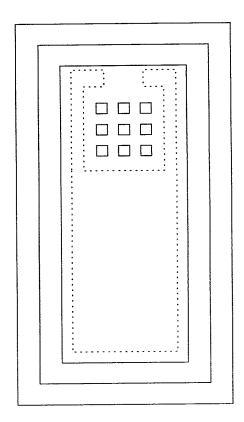
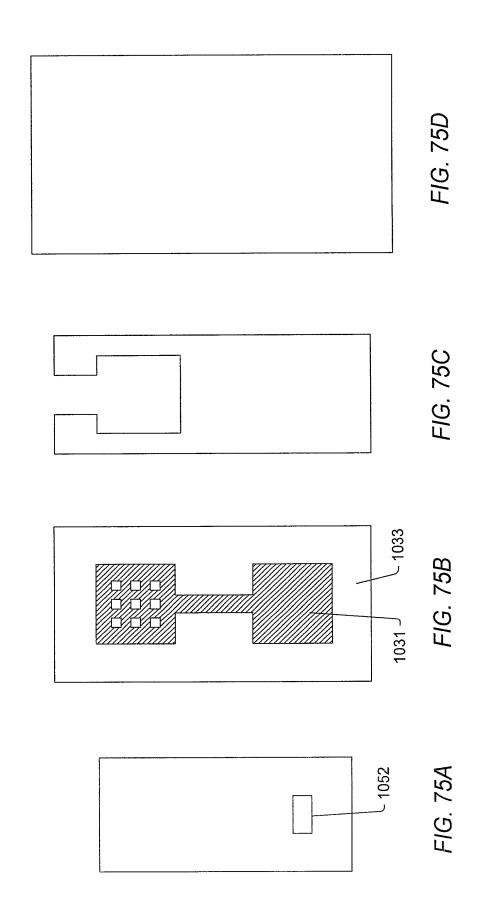


FIG. 74B



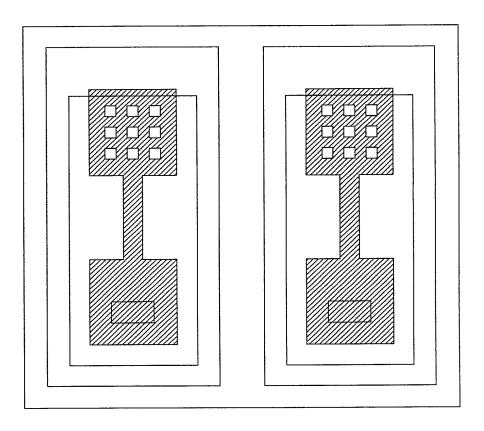
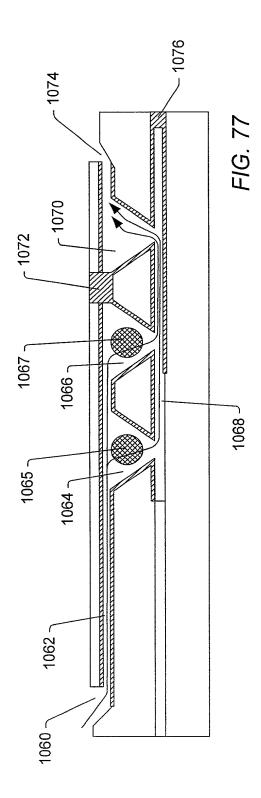


FIG. 76



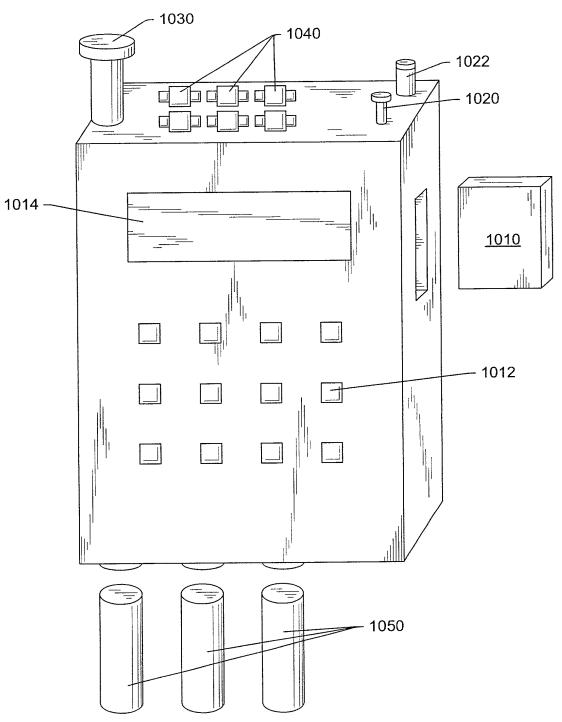


FIG. 78

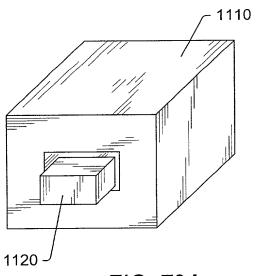


FIG. 79A

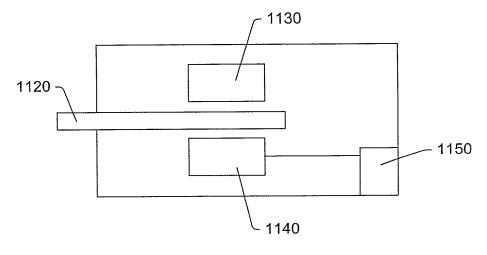


FIG. 79B

